5

20

25

30

CLAIMS:

1. A method for eliminating unwanted portions of an image, the method comprising the steps of:

generating a panoramic image including a plurality of image pixels;

identifying a first set of the image pixels that correspond to the unwanted portions of the image;

determining particular characteristics of the image pixels positioned adjacent to the image pixels in the first set of image pixels; and

replacing the first set of image pixels with replacement pixel data generated by using the particular characteristics of the image pixels adjacent to the first set of image pixels.

- 2. The method of claim 1, wherein the replacement pixel data is generated by interpolating the particular characteristics of the image pixels adjacent to the first set of image pixels.
- 3. The method of claim 1, wherein the replacement pixel data is generated by extrapolating the particular characteristics of the image pixels adjacent to the first set of image pixels.
- 4. The method of claim 1, wherein the step of generating a panoramic image including a plurality of image pixels includes the steps of:

mounting a convex mirror along a common axis with a camera; and

using the camera to generate the panoramic image using light reflected off of the convex mirror, wherein the unwanted portions of the image correspond to portions of the image containing a mirror support structure.

5. The method of claim 4, wherein the step of identifying a first set of the image pixels that correspond to the unwanted portions of an image comprises the step of:

locating the image pixels that a predetermined characteristic of the mirror support structure.

- 6. The method of claim 1, wherein the step of identifying a first set of the image pixels that correspond to the unwanted portions of an image comprises the step of:
- calibrating the location of a structure that produces the unwanted portion of the image.
- 7. The method of claim 1, wherein the step of identifying a first set of the image pixels that correspond to the unwanted portions of an image comprises the step of:

20

25

5

determining particular characteristics of the unwanted portion of the image.

- 8. The method of claim 1, wherein the particular characteristics include: red, green and blue color information.
- 9. The method of claim 1, wherein the particular characteristics include: hue, saturation and intensity information.
- 10. A panoramic photographic system comprising:

a camera for generating a panoramic image including a plurality of image pixels; and

a processor for identifying a first set of the image pixels that correspond to the unwanted portions of an image, for determining particular characteristics of the image pixels positioned adjacent to the image pixels in the first set of image pixels, and for replacing the first set of image pixels with replacement pixel data generated by using the particular characteristics of the image pixels adjacent to the first set of image pixels.

- 11. The panoramic photographic system of claim 10, wherein the replacement pixel data is generated by interpolating the particular characteristics of the image pixels adjacent to the first set of image pixels.
- 12. The panoramic photographic system of claim 10, wherein the replacement pixel data is generated by extrapolating the particular characteristics of the image pixels adjacent to the first set of image pixels.
 - 13. The panoramic photographic system of claim 10, further comprising: a convex mirror; and

a mount for positioning the mirror with respect to the camera, wherein the unwanted portions of the image correspond to portions of the image containing a mirror support structure.

- 14. The panoramic photographic system of claim 13, wherein the camera and the mirror are positioned on a common axis, and the mirror support structure includes a plurality of struts extending in directions parallel to the common axis.
- 15. The panoramic photographic system of claim 14, wherein the struts each have a trapezoidal cross-sectional shape in a plane perpendicular to the common axis.
- 16. The panoramic photographic system of claim 14, wherein the struts each have a rectangular cross-sectional shape in a plane perpendicular to the common axis.

30

5

17. The panoramic photographic system of claim 10, wherein the particular characteristics include:

red, green and blue color information.

18. The panoramic photographic system of claim 10, wherein the particular characteristics include:

hue, saturation and intensity information.

19. The panoramic photographic system of claim 10, further comprising: a curved reflective mirror; and

means for mounting the curved reflective mirror to the camera, wherein the mounting means includes at least one strut positioned in a field of view of the camera.